

## WASTEWATER TREATMENT DIVISION PROJECT MANAGEMENT UNIT Upcoming AEP Procurements as of 1st Quarter 2017

Upcoming Consultant Opportunities:	
Project - Engineering Services	Advertise
West Point Mixed Liquor Blower - Dave Truman	Q1, 2017
South Treatment Plant 13kV Switchgear Replacement Phase 1 Project Planning - Bill Olwell	Q1, 2017
Jameson / ArcWeld Building Replacement – Judy Pickar	Q1, 2017
University CSO Control - Greeen Stormwater Infrastructure - Chris Robinson	Q2, 2017
Sediment Management Technical Services – Jeff Stern	Q2, 2017
Treatment Plant Flow and Loadings Study - Tiffany Knapp	Q2, 2017
Interbay Force Main and Odor Control Project - Marla Brooks	Q2, 2017
Eastside Interceptor Section 2 Corrosion Repair - MaryBeth Gilbrough	Q2, 2017
Brightwater Aeration Basin Optimization - Rebecca Gauff	Q2, 2017
WTD Capital Project Formulation - Ann Grothe	Q2, 2017
System Wide Arc Flash Assessment - Kolby Hoagland	Q3, 2017
Small Generator Replacements at Various Facilities - Sarah Draper	Q3, 2017
West Point LSG Pipe Replacement - Rebecca Gauff	Q4, 2017
West Point Return Activated Sludge and Primary Effluent Pipe Replacement - Rebecca Gauff	Q4, 2017
Sammamish Plateau Diversion - Sue Hildreth	tbd, 2018
Project - CM Services	Advertise
North Mercer Island and Enatai Interceptors Upgrade - Sibel Yildiz	Q3, 2017
Lake Hills and NW Lake Sammamish Interceptor Upgrade - Jennifer Kauffman	Q3, 2017
Chelan Avenue CSO Control - Michael Popiwny	Q1, 2018
University GSI - Chris Robinson	Q3, 2019
West Duwamish - Chris Robinson	Q2, 2021



## West Point Secondary Mixed Liquor Channel Air Blower Replacement

#### **BACKGROUND:**

 Centrifugal blowers provide agitation air for the mixed liquor channel, via coarse bubble diffusers

### **PROJECT OBJECTIVE:**

• Improve energy efficiency of channel aeration

### **PHASE 1:** Alternative Analysis

- Conduct evaluation of current aeration requirements
- Compare and contrast alternatives to provide more energy efficient aeration

### **FUTURE PHASES:**

- Predesign, Final Design and Bidding Services
- Services During Construction

Contract Specialist: Paul Price

Contract No. E00470E17





# South Treatment Plant 13kV Switchgear Replacement Contract E00478E17

**OVERVIEW**: Replacement of the 13kV switchgear that provide service for the Raw Sewage Pump Building.

### SCOPE:

- Project Planning
- Review Basis of Design Report and Equipment Assessment
- Predesign, final design and bidding services
- Services during construction

### **EXAMPLE SERVICES/DELIVERABLES:**

- Predesign Report
- Construction bid package
- Startup and testing services

**Project Cost**: Anticipated \$622,000

**Contract Specialist: Tina Davis and Ruth Williamson** 

Contract No. E00478E17

RFP Issued Proposals Due Q1 2017



### Jameson/ArcWeld Building Replacement

**OVERVIEW**: Provide a safe and functional facility to house WTD's West Section Off-Site Facilities and North Satellite Construction Management personnel.

#### SCOPE:

- Perform Alternatives Analysis & Develop Recommended Alternative
- Building will include heavy machine shop with high bay, overhead crane and welding area.
- Achieve LEED Platinum Certification and/or International Living Future Institute's Living Building Challenge.

### **EXAMPLE SERVICES/DELIVERABLES:**

- Phase 1 Alternatives Analysis & Site Selection
- Phase 2 Preliminary Design
- Phase 3 Final Design & Bidding Services
- Phase 4 Services During Construction

**Project Cost**: Anticipated \$1.7 M **Project Manager: Judy Pickar** 





### University Green Stormwater Infrastructure

**BACKGROUND**: Using natural processes (e.g., bioretention) to capture stormwater so that it reduces the peak and total volumes entering the combined system.

**PROJECT OBJECTIVE**: Install GSI facilities in the University Basin to reduce the gray infrastructure demands (e.g., storage, treatment) needed for full CSO control at the University Regulator Station Overflow.

### **PHASE 1: Alternatives Analysis (AA)**

- Conduct geotechnical/hydrogeological investigation to support AA
- Conduct community outreach to support AA

### **FUTURE PHASES:**

- Predesign and final design services
- Construction management services

**Project Manager: Chris Robinson and Liz Korb** 

Project Engineer: John Abdalkhani





### Sediment Management Technical Services

**OBJECTIVE**: Support the County's work to assess and clean up contaminated sediment resulting from nearshore discharges for selected sites identified in the Sediment Management Plan.

### **PRELIMINARY SCOPE ITEMS:**

- Site Characterization and Remedial Investigation Work Plans
- Feasibility Studies, Risk Assessment, and Alternative Analysis
- Cleanup Action Plans

#### **ANTICIPATED CONSULTANT SERVICES NEEDED:**

- Engineering Design for Contaminated Sediment Remediation
- Project Management: Remedy Planning and Design
- Remedy Implementation Oversight
- Environmental Review
- Source Control Investigation
- Interagency and Stakeholder Coordination

**Project Manager: Jeff Stern** 





### Interbay Force Main and Odor Control Project

**OVERVIEW**: Replace segments of the force main and resolve odor control/H2S corrosion issues at the discharge structure

#### **SCOPE**:

- The project will determine the locations and length of replacements needed in the 3,000 foot force mains at Interbay
- Design and construct odor control, may need to be relocated

### **Anticipated Consultant Services Needed:**

- Engineering: Design services for preparing Contract Documents
- Permitting: City of Seattle Right-of-Way, Street Use
- Property: Rights of Entry w/Army, property easements

**Project Cost**: Anticipated \$31 Million

**Project Manager: Marla Coles** 





### Eastside Interceptor Section II Rehabilitation

**OVERVIEW**: Rehabilitate severely corroded 96-inch Interceptor

### **SCOPE**:

- Rehabilitate 3,900 feet of 96-inch reinforced concrete pipe
- Sewer bypass as large as 70 MGD may be necessary.
- Work will impact public right-of-way and Boeing Property.

### **Anticipated Consultant Services Needed:**

- Engineering: Design services for preparing Contract Documents
- Permitting: City of Renton Right-of-Way, Grading, Street Use
- Property: Boeing easements, other private property easements
- Community Relations: Assist with outreach

**Project Cost**: Anticipated \$30 Million **Project Manager: MaryBeth Gilbrough** 





### **Brightwater Aeration Basin Optimization**

**BACKGROUND**: Aeration basins alkalinity lower than anticipated; requires significant alkalinity addition to meet discharge limit pH permit.

**PROJECT OBJECTIVE**: Optimize existing aeration basin performance by:

- Improving diffuser/zone control
- Reducing chemical costs (alkalinity addition), energy use, foaming

### **PHASE 1: Alternatives Analysis**

- Analyze aeration basin design and performance
- Analyze process air system
- Coordinate with other aeration basin related projects

#### **FUTURE PHASES:**

- Predesign and final design services
- Construction management services

**Project Cost:** Anticipated \$12.5 Million

**Project Manager: Rebecca Gauff Project Engineer: Rick Andrews** 





### WTD Project Formulation

**OVERVIEW**: Refine planning level scope, schedule and cost information to improve evaluation and development of several capital projects.

#### **SCOPE**:

- Project Assumptions & Constraints
- Cost Estimating & Scheduling
- Alternatives Analysis (high level)

### **EXAMPLE SERVICES/DELIVERABLES:**

- Class 5 Estimate & Basis of Estimate documentation
- Schedule with Forecasted Cash Flow
- Procurement Plan
- Risk Assessment
- ESJ and Sustainability Analysis

**Project Cost**: Anticipated \$3M **Project Manager: Ann Grothe** 





### Electrical Systems Analysis & Arc Flash Study

**OVERVIEW**: Review electrical systems in all WTD facilities that pose an arc flash hazard and execution of an arc flash study in accordance with NFPA 70E

### **SCOPE**:

- Project Planning
- Review and confirmation of installed electrical systems
- Analysis of systems and arc flash study
- Produce report by facility
- Execution of trainings on findings

### **EXAMPLE SERVICES/DELIVERABLES:**

- Summary of collected data by facility
- Final report & arc flash study by facility
- Trainings for facility & engineering staff

**Project Cost**: Anticipated \$900,000 **Project Manager: Kolby Hoagland** 





## Small Generator Replacement at Various Offsite Stations

**OVERVIEW**: The project will replace aging standby power generators at 13 Regulator Stations and two Outfall Stations in Seattle.

**PROJECT OBJECTIVE**: Ensure that reliable backup electrical power is available to keep the facilities operating during power outages.

### TASK / PHASE 1:

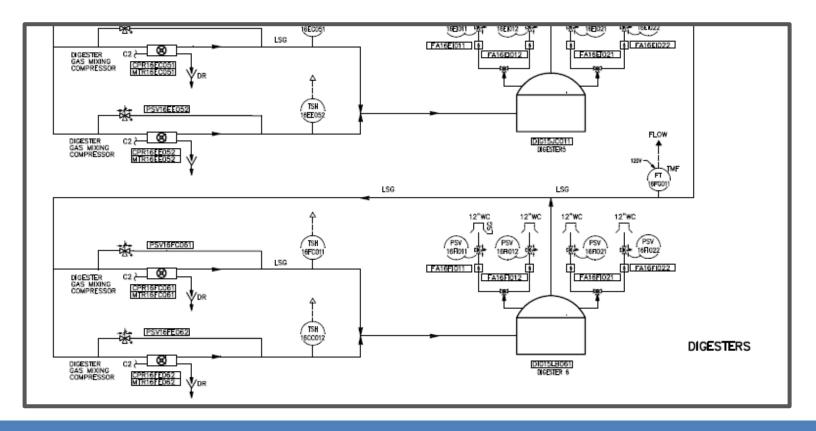
Alternatives Analysis

### **FUTURE TASKS/PHASES:**

- Baseline Design
- Final Design
- Engineering Services During Construction

**Project Manager: Sarah Draper** 





### West Point LSG Piping Replacement

**OVERVIEW**: Replace the Low Pressure Biogas (LSG) piping system at West Point Treatment Plant

#### SCOPE:

- Determine/confirm extent of piping replacement.
- Design replacement piping and appurtenances.
- Develop implementation strategy for pipe replacement.

### **Key Considerations:**

Operations: Systems utilizing LSG must remain in service.

 Safety: WTD Process Safety Management Committee review and approval is required in addition to other code/permit requirements.

RFP

anticipated

Q4 2017

Project Cost: Anticipated: \$8.5 Million

**Project Manager: Rebecca Gauff** 



# West Point PE and RAS Pipe Restoration/Replacement

**OVERVIEW**: Restore/Replace the Primary Effluent (PE) and Return Activated Sludge (RAS) Piping at West Point Treatment Plant

### **SCOPE**:

- Determine/confirm extent of piping restoration and/or replacement.
- Design replacement piping and appurtenances.
- Develop implementation strategy for pipe replacement.

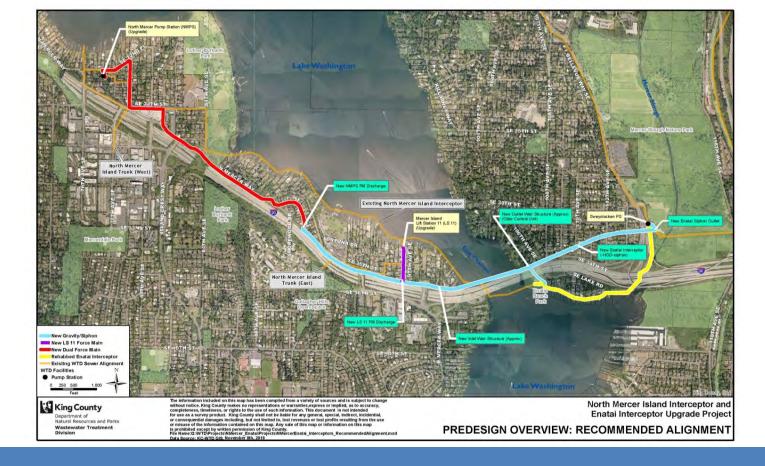
### **Key Considerations:**

- Operations: Systems must remain in service.
- Pipe Location: Includes exposed and buried pipe.

**Project Cost:** Anticipated: \$2.9 Million

**Project Manager: Rebecca Gauff** 





## Construction Management Services for the North Mercer Island and Enatai Interceptors Upgrade Project

**OBJECTIVE:** Construct approximately 3 miles of sewer pipelines between North Mercer Pump Station and Sweyolocken Pump Station by open-cut on-land, in-water construction and trenchless methods to increase system reliability, performance, and capacity of the existing system. The project also includes North Mercer Pump Station upgrade, Lift Station 11 modifications, and rehabilitation of the existing Enatai Interceptor.

#### PRELIMINARY SCOPE ITEMS:

- Constructability review
- Construction contract administration support
- Construction inspection

#### **ANTICIPATED CONSULTANT SERVICES NEEDED:**

- Project control (cost and schedule analysis)
- Construction inspection

CM Services Contract Cost: Anticipated \$4,000,000

Project Manager: Sibel Yildiz, PMP

**Engineering: Mann-Ling Thibert / Jesse Collins** 





Construction Management Services for the Lake Hills Trunk/NW L. Sammamish Interceptor Sewer Upgrade Project

**OBJECTIVE**: Construct approximately 4.4 miles of sewer pipelines by open-cut construction and trenchless methods to increase capacity. The new pipelines will generally follow the existing pipeline alignment.

### **PRELIMINARY SCOPE ITEMS:**

- Constructability review
- Construction contract administration support
- Construction inspection

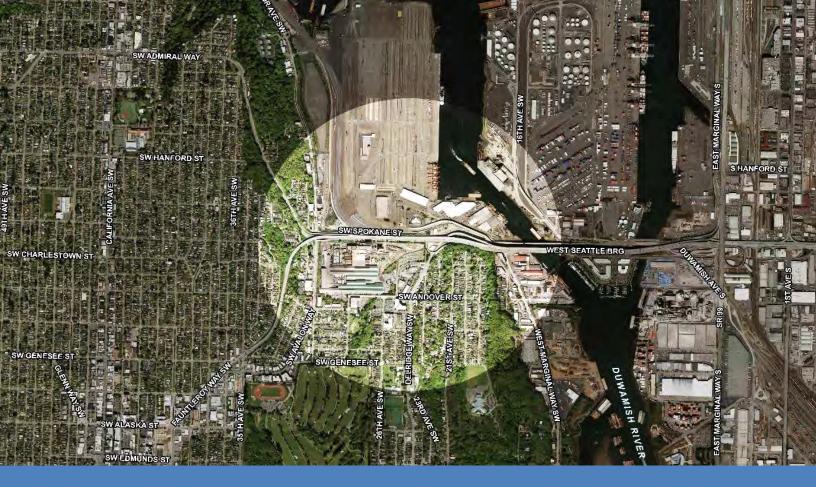
### **ANTICIPATED CONSULTANT SERVICES NEEDED:**

- Project control (cost and schedule analysis)
- Construction inspection

Project Cost: Anticipated \$3,000,000

Project Manager: Jennifer Kauffman, PMP





### Construction Management Services for the Chelan Avenue CSO Storage Project

**PROJECT OBJECTIVE**: Control Chelan Avenue Combined Sewer Overflow to one event per year on a 20 year rolling average

#### **PROJECT SCOPE:**

 This project will require the construction of a buried storage tank or tunnel to hold approx. 4.3 million gallons of combined waste and rain water, a pump station of approx. 7.7 mgd, above grade support facilities likely to include a facilities building, odor control, emergency generation and flow diversion and discharge.

### **ANTICIPATED CONSULTANT SERVICES NEEDED:**

- Construction Management to Support King County
- Services to begin before completion of 60% design
- NTP estimated in Late 2019

Contract value for CM Services: Approx. \$4,000,000

**Project Manager: Michael Popiwny** 

RFP anticipated Q1 2018







## Construction Management Services for the University Green Stormwater Infrastructure Implementation

**OBJECTIVE**: Construct GSI facilities in the University Basin to reduce the gray infrastructure demands (e.g., storage, treatment) needed for full CSO control at the University Regulator Station Overflow.

### **PRELIMINARY SCOPE ITEMS:**

- Constructability review
- Construction contract administration support
- Construction inspection

### **ANTICIPATED CONSULTANT SERVICES NEEDED:**

- Project control (cost and schedule analysis)
- Construction inspection

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**Project Cost**: Anticipated \$2,000,000 **Project Manager: Chris Robinson, PMP** 





## Construction Management Services for the West Duwamish CSO Control Project

**OBJECTIVE**: Control the West Michigan and Terminal 115 CSO Overflows to one event per year on a 20 year rolling average using green stormwater infrastructure, storage or some combination of the two.

### **PRELIMINARY SCOPE ITEMS:**

- Constructability review
- Construction contract administration support
- Construction inspection

### **ANTICIPATED CONSULTANT SERVICES NEEDED:**

- Project control (cost and schedule analysis)
- Construction inspection

**Project Cost**: Anticipated \$2,500,000 **Project Manager: Chris Robinson, PMP** 

